Alaska
Emergency Medical Services for Children
Five Year Strategic Plan
1999 - 2003

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National Emergency Medical Services for Children (EMSC) Mission Statement

> *The Emergency Medical Services for Children program is designed to reduce the child and youth mortality and morbidity sustained due to severe illness or trauma. It aims to ensure state of the art emergency medical care for the ill or injured child and adolescent: to ensure that pediatric services is well integrated into an emergency medical services (EMS) system backed by optimal resources; and to ensure that the entire spectrum of emergency services, including primary prevention of illness and injury, acute care, and rehabilitation, is provided to children and adolescents as well as adults.*[1]

Purpose

This five-year plan is intended to guide the planning, implementation and planning of Emergency Medical Services for Children (EMSC) activities in Alaska. The objectives set forth in this document are based on nationally established goals for the EMS program and are designed to address priorities established by the Alaska Council on Emergency Medical Services (ACEMS), its EMSC Task Force, the Alaska Regional EMS Directors and Coordinators, and others who provided input into the plan's development.

Overview

Nationally, it has been estimated that between 8,000 and 12,000 children who die from injuries each year could be saved through injury prevention programs or emergency medical services for children.[2]

The table on the right details the estimated number of persons per age group in Alaska.

Although these numbers may seem small to those used to dealing with more populous states, they are associated with alarming rates of injuries and deaths and they are spread out in vast areas in which providing medical resources is very difficult.

ALASKA POPULATION OVERVIEW, 1997 ESTIMATES[1]

Age Group	Total	% of Total Population	Alaska Native	% of Total Age Group
Under 1	10,029	1.64	2,362	23.55
1-2	20,333	3.33	4,518	22.22
0-4	51,665	8.45	11,769	22.78
5-9	57,309	9.37	13,298	23.20
10-14	54,596	8.93	11,601	21.25
15-19	45,786	7.49	9,375	20.48

In 1997, the Department of Health and Social Services (DHSS) published the study *Serious and Fatal Child and Adolescent Injuries in Alaska, 1991 - 1994*, based on data from the Alaska Trauma Registry and Bureau of Vital Statistics. In the study, researcher Martha Moore determined that the leading causes of death in Alaska among youth ages 0 to19 were suicide (73), motor vehicle/traffic crashes (68), homicide (38), drowning (37) and fire (32).[3]

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1 U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (1995). Five Year Plan: Emergency Medical Services for Children, 1995 – 2000, Washington, D.C.: , Emergency Medical Services for Children National Resource Center.

2 Kelly Perez, *Emergency Medical Services for Children (*National Conference of State Legislatures, February, 1998, Page 1)

3 Martha Moore, MS, *Serious and Fatal Child and Adolescent Injuries in Alaska, 1991-1994* (Alaska Department of Health and Social Services, October, 1997, Page 7)

This table, adapted from a study by Susan Baker, et al,[4] illustrates the injury mortality categories where Alaska rates are significantly higher than national rates.

INJURY MORTALITY, AGES 0 - 19, US VS. ALASKA, 1986 - 1992. RATE PER 100,000			
Category		**Alaska**	**United States**
Firearm		10.0	6.2
[redacted]	Unintentional	3.7	0.7
	Suicide	3.9	1.9
Drowning		6.0	2.5
Suicide (Including Firearms)		5.7	3.1
Suffocation		3.9	1.5
Fire		2.7	1.9
Poisoning		2.4	0.9
Choking		1.1	0.5

DHSS, as well as other agencies, recognizes the significance of these problems and has supported numerous initiatives to reduce injuries and deaths among children.

The Department of Health and Social Services is uniquely positioned to plan, and implement, changes in the emergency medical services system in Alaska. By statute,[5] the department is responsible for the development, implementation, and maintenance of a statewide comprehensive emergency medical services system. The EMS Unit, within the Section of Community Health and EMS, is the home of the Alaska EMSC Project and provides staff and other resources to advance the EMSC mission.

The Development Process

This plan is based largely on the recommendations arising from an April, 1999 meeting of the Alaska Council on Emergency Medical Services, which convened specifically to address EMSC issues. In addition, the State EMS Training Committee, a subcommittee of ACEMS, met to discuss the current status of pediatric emergency medical training in Alaska, and to recommend steps which can be taken to improve EMSC related training.

Based on recommendations and discussions from these meetings, as well as comments received during EMSC grant application review and development, an initial draft of the plan was drafted and sent for review and comment. [Complete later]

Acknowledgements

Development of this five-year plan was coordinated by Doreen Risley, RN, State EMSC Project Coordinator. Agencies contributing to the plan included:

- Alaska Council on Emergency Medical Services
- State EMS Training Committee
- Southern Region EMS Council, Inc.
- Southeast Region EMS Council, Inc.
- Interior Region EMS Council, Inc.
- Maniilaq Association EMS Program
- Norton Sound Health Corporation EMS Program
- North Slope Borough EMS Program

[4] Susan P. Baker, et al, *Injury to Children and Teenagers, State by State Mortality Facts*. (The John Hopkins Center for Injury Research and Policy, February, 1996).

[5] AS 18.08.010

- Yukon-Kuskokwim Health Corporation EMS Program
- Providence Alaska Medical Center
- Alaska Regional Hospital
- Alaska Native Medical Center

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INTEGRATION OF HEALTH SERVICES

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Ensure that Alaska's EMS and trauma system fully integrates pediatric elements throughout.	1.a. Review and update trauma system plan to incorporate pediatric elements.	1.a. Medical Directors, EMS Regional Directors/ Coordinators
	1.b. Refine the system used to notify EMS agencies that a technology-assisted child has been discharged to their community.	1.b. EMS Regional Directors/ Coordinators
	1.c. Encourage the inclusion of pediatric health professionals in all committees, working groups and other organizations having EMSC related responsibilities.	1.c. EMS Regional Directors/ Coordinators, EMSC Task Force

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EMS RESEARCH

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Expand EMS for Children research and its utility in directing limited resources for personnel and money.	2.a. Provide funding for EMS system research.	2.a. EMSC Task Force
	2.b. Define and incorporate EMS research in EMS continuing education and training programs, teaching methodology and importance of performing research.	2.b. EMSC Task Force, ACEMS Training Committee
	2.c. Encourage the development of information systems that provide linkage between various public safety services and other health care providers.	2.c. ACEMS, EMS Regional Directors/Coordinators

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LEGISLATION AND REGULATION

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Integrate children's unique needs into every component of the State EMS system.	3.a. Encourage and support development of a state-level EMSC steering committee or task force.	3.a. ACEMS, EMS Regional Directors/Coordinators
	3.b. Identify and assemble pediatric technical assistance teams to support rural, volunteer emergency medical services.	3.b. EMS Regional Directors/ Coordinators, EMSC Task Force
	3.c. Encourage the enhancement of EMS legislation to: - define expanded scope of practice for appropriately trained pre-hospital EMS providers; - strengthen requirements for data collection and reporting in the pre-hospital environment; - require pediatric CME for EMS each certification period; - require First Aid/CPR, injury prevention, and ETT training for high school graduation; - provide incentives to EMS volunteers.	3.c. ACEMS, EMS Regional Directors/Coordinators, EMSC Task Force
	3.d. Encourage legislation that mandates use of helmets for children under 18 years of age, when riding ATV's, bikes, snow machines, etc.	3.d. ACEMS, EMS Regional Directors/Coordinators, Injury Prevention Specialist, EMSC Task Force

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SYSTEM FINANCE

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Ensure stable support for EMS infrastructure funding.	4.a. Educate local, state, and federal government officials and their staffs about the importance of maintaining and improving an EMS infrastructure and the funding it requires. 4.b. Provide training in billing and improve the system through centralized or pooled billing for the smaller services. 4.c. Encourage legislation to allow reimbursement at every level of service to include non-transports treated at the scene. 4.d. Explore alternate sources of funding to maintain services, such as local taxes, state funding, fees for services, state insurance, project income, etc.	4.a. ACEMS, EMS Regional Directors/Coordinators, EMSC Task Force 4.b. EMS Regional Directors/ Coordinators 4.c. ACEMS, EMS Regional Directors/Coordinators 4.d. ACEMS, EMS Regional Directors/Coordinators

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HUMAN RESOURCES

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Expand pediatric emergency medical training and injury prevention for health professionals.	5.a. Define and incorporate minimum course objectives in pediatric emergency medical care and injury prevention for EMT training programs.	5.a. ACEMS Training Committee
	5.b. Develop a statewide training plan for non-prehospital emergency medical care providers.	5.b. ACEMS Training Committee
	5.c. Increase proficiency in pediatric emergency medical care among practicing emergency health professional through continuing education courses.	5.c. EMS Regional Directors/ Coordinators, EMS agencies, Hospitals
	5.d. Provide pediatric internships to EMS providers to increase individual confidence and skills in caring for pediatric patients.	5.d. EMS Regional Directors/ Coordinators
	5.e. Focus on pediatric issues during the State EMS Symposium in FY00.	5.e. ACEMS Training Committee
	5.f. Incorporate a pediatric module in the medevac course.	5.f. Medevac Instructors
	5.g. Expand the training to include school nurses and Community Health Aides/Practitioners (CHA/P).	5.g. School nurses, CHA/P Training programs, EMS Regional Directors/ Coordinators
Increase access to emergency medical training.	5.h. Increase the number of Emergency Trauma Technician courses taught in rural high schools.	5.h. EMS Regional Directors/ Coordinators, School Districts
	5.i. Test and improve the availability of distance delivered EMS	5.i. ACEMS Training Committee

	education in rural areas. 5.j. Increase the number of pediatric emergency courses delivered throughout the state, such as Pediatric Advanced Life Support, Neonatal Advance Life Support, Advanced Trauma Life Support, Emergency Nurse Pediatric Course, etc.	5.j. EMS Regional Directors/ Coordinators, Alaska Native Medical Center, ACEMS Training Committee

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MEDICAL DIRECTION

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Provide pediatric continuing education to medical directors throughout the state.	6.a. Focus on pediatric issues in the Clinical Track during the State EMS Symposium in 2000.	6.a. Medical Directors
	6.b. Explore alternative methods of providing pediatric medical training through use of the internet and other distance delivery methods.	6.b. EMS Regional Directors/ Coordinators, Medical Directors
	6.c. Increase the number of focused reviews by medical directors on pediatric issues for QA/QI.	6.c. Medical Directors
	6.d. Define and strengthen the organizational structure for medical directors.	6.d. EMS Regional Directors/ Coordinators, Medical Directors
	6.e. Increase recruitment and incentives to medical directors.	6.e. Medical Directors
	6.f. Enhance communications between rural clinic doctors and EMS personnel.	6.f. Medical Directors, Hospitals, Clinics
	6.g. Provide funding for site visits/teleconferences for medical directors to perform run reviews.	6.g. EMS Regional Directors/ Coordinators

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EDUCATION SYSTEMS

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Update EMS education programs to include pediatric emergency medical care and injury prevention.	7.a. Define and incorporate minimum course objectives in pediatric emergency medical care and injury prevention for EMT training programs.	7.a. ACEMS Training Committee, EMS Regional Directors/Coordinators
	7.b. Establish innovative and collaborative relationships between EMS education programs and academic institutions.	7.b. ACEMS Training Committee
	7.c. Include pediatric emergency care objectives at all levels of EMS education.	7.c. ACEMS Training Committee

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PUBLIC EDUCATION

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Educate the public on how to access the EMS system, and child injury prevention.	8.a. Use PSAs to instruct the public on the proper use of 911.	8.a. ACEMS, EMS Regional Directors/Coordinators
	8.b. Encourage use of the internet and other resources to access information about EMS system and child injury prevention.	8.b. EMS Regional Directors/ Coordinators, ACEMS Training Committee, ACEMS
	8.c. Expand the Alaska EMS web site to detail Alaska EMSC activities and provide linkages to other EMSC sites throughout the country.	8.c. ACEMS Training Committee
	8.d. Acknowledge public education as a critical activity for EMS, e.g., EMS at health fairs, in schools, etc.	8.d. EMS Regional Directors/ Coordinators, ACEMS
	8.e. Expand EMS involvement in community groups, such as Safe Kids, Anchorage Safe Communities, etc.	8.e. EMS Regional Directors/ Coordinators, Local EMS Agencies
	8.f. Educate the public as consumers, e.g., access care at the appropriate level.	8.f. EMS Regional Directors/ Coordinators, ACEMS

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PREVENTION

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNER
Include the principles of prevention, with a focus on pediatrics, as part of EMS education core contents.	9.a. Ensure EMT course objectives to include basic principle of injury prevention.	9.a. ACEMS Training Committee, Injury Prevention Specialists
Encourage EMS providers to seek continuing education credit in injury prevention and to become involved in their communities.	9.b. Increase relevance of injury prevention information presented at the State EMS Symposium for emergency medical service providers. 9.c. Increase the number of EMS Injury Prevention programs available.	9.b. ACEMS Training Committee, Injury Prevention Specialists 9.c. ACEMS Training Committee, Injury Prevention Specialists
Specialized teams to travel quickly to communities following a significant injury or illness to provide prevention assessments and information on how to prevent similar incidents in the future.	9.d. Create a model "prevention response team," define member criteria, and develop a team manual. 9.e. Provide team with the resources, financial and educational, to positively impact the community in need.	9.d. Injury Prevention Specialists, Alaska Native Medical Center 9.e. Injury Prevention Specialists

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PUBLIC ACCESS

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Increase to 85% the number of Alaska residents that have access to 911 enhanced systems.	10.a. Encourage local communities to assess a telephone surcharge for 911 enhanced systems. 10.b. Support passage of state legislation to assess fees on wireless telephones for funding to develop wireless 911 enhanced systems.	10.a. ACEMS, EMS Regional Directors/Coordinators 10.b. ACEMS, EMS Regional Directors/Coordinators
Increase the number of facilities that become state certified trauma centers	10.c. Increase the number of facilities reviewed for trauma center certification, through support and technical assistance.	10.c. ACEMS, Trauma Registry Review Committee

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COMMUNICATION SYSTEMS

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Assure inclusion of relevant pediatric protocols related to pediatric emergency medical care in DHSS approved Emergency Medical Dispatchers (EMD) courses.	11.a. Develop standards for review of all EMD courses submitted for course approval to DHSS to ensure inclusion of relevant pediatric protocols.	11.a. EMSC Task Force
Provide greater access to pre-arrival instructions for the general population	11.b. Continue to highlight the benefits of state certification for trained emergency medical dispatchers. 11.c. Contact trained dispatchers and encourage them to become state certified. 11.d. Encourage EMS organizations to train their dispatchers to provide pre-arrival instruction and become state certified.	11.b. Currently certified dispatchers 11.c. EMD Course supervisors 11.d. Dispatch Centers

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CLINICAL CARE

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Increase the number of EMS agencies that use pediatric protocols for both on-line and off-line medical direction.	12.a. Develop model pediatric standing orders and encourage their use throughout the state.	12.a. ACEMS Training Committee, EMSC Task Force
	12.b. Ensure inclusion of pediatric-related EMS dispatch protocols in DHSS approved EMD courses.	12.b. Dispatch Centers, EMSC Task Force, ACEMS Training Committee
	12.c. Revise and update the Alaska State Trauma Guidelines to address pediatric elements throughout.	12.c. ACEMS Training Committee, EMSC Task Force, Medical Directors
Define the minimum complement of pediatric equipment needed aboard EMS transport vehicles and implement statewide.	12.d. Review and adapt the equipment list developed by national EMSC program, based on Alaska's needs.	12.d. ACEMS Training Committee, EMSC Task Force, Medical Directors
	12.e. Provide grants to communities with the fewest resources and alternatives to purchase needed pediatric equipment.	12.e. EMS Regional Directors/ Coordinators
Define baseline pediatric equipment for rural clinics and hospitals.	12.f. Update the pediatric equipment list for rural hospitals and clinics.	12.f. EMSC Task Force, Hospitals and Clinics
	12.g. Distribute equipment to rural clinics and hospitals as money allows.	12.g. EMSC Task Force, Hospitals and Clinics

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INFORMATION SYSTEMS

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Improve data collection systems, data analysis methodology and research to describe and evaluate emergency medical care for children.	13.a. Update and revise the State of Alaska EMS Patient Encounter form and encourage its use statewide.	13.a. ACEMS Training Committee, Medical Directors
	13.b. Periodically survey services to solicit their training needs regarding emergency care of children.	13.b. EMSC Task Force, ACEMS Training Committee
	13.c. Develop software/programming to retrieve additional emergency department data to supplement the Alaska Trauma Registry.	13.c.
	13.d. Test pre-hospital data collection systems in at least six communities over the next three years.	13.d. EMS Regional Directors/ Coordinators
	13.e. Provide reports back to the participating communities.	13.e.
	13.f. Increase the number of EMS agencies performing pre-hospital data collection and reporting.	13.f. ACEMS, EMS Regional Directors/Coordinators

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EVALUATION

Problem Statement:

GOAL	ACTIVITIES	PRIMARY PARTNERS
Use evaluation of multiple conditions and outcome categories to improve quality of EMS for Children.	14.a. Evaluate the effectiveness and appropriateness of new and ongoing policies related to EMS for Children through means such as: - evaluating transfer/triage/transport patterns and trends; - measuring comfort level and satisfaction of providers regarding pediatric emergencies; - surveying participants of pediatric training programs immediately afterwards and at one year intervals; - evaluating what has been institutionalized regarding EMSC; - evaluating the protocols, regulations, policies, and funding; - evaluating the impact of the EMSC program on mortality/morbidity rates.	14.a. EMSC Task Force, ACEMS, ACEMS Training Committee, Medical Directors